

In this response, Applicants traverse the §102(a) rejection, and respectfully request reconsideration of the present application.

The Manual of Patent Examining Procedure (MPEP), Eight Edition, August 2001, §2131, specifies that a given claim is anticipated “only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference,” citing Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, MPEP §2131 indicates that the cited reference must show the “identical invention . . . in as complete detail as is contained in the . . . claim,” citing Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). For the reasons identified below, Applicants submit that the Examiner has failed to establish anticipation of claims 1-5 and 15-19 by the Caldara reference.

Independent claim 1 is directed to a contention-based communications network supporting communications stations that transmit data packets. The claim further recites that, in the network, there are multiple linked-list chains of data packets transmitted by the communications stations. The claim also makes it clear that the multiple linked-list chains of data packets are transmitted by the communications stations, and that the network is configured such that the multiple linked-list chains of data packets at a particular point in time are not always thereafter joined into a single linked-list chain.

An illustrative embodiment of an arrangement of the type claimed is implemented in the contention-based communication network of FIG. 1. The specification at page 7, line 14, to page 13, line 8, describes an arrangement, implemented in the contention-based network of FIG. 1, in which multiple linked-list chains of data packets transmitted by communications stations supported by the network at a particular point in time are not always thereafter joined into a single linked-list chain. This portion of the specification, more particularly at page 10, lines 31-32, indicates that the Chlamtac paper, first cited at page 1, lines 25-28, of the specification, teaches an arrangement in which “all the real-time stations join in a single chain.” The present invention is contrary to the known Chlamtac approach, in that it “does not always join multiple linked-list chains that may exist at any particular point in time into a single linked-list chain.” Instead, it “allows for the possibility of two or more chains existing independently for an indefinite period of time.” See the specification

at page 11, lines 5-9. The specification goes on to describe a specific arrangement of this type, with reference to the communications stations of the contention-based network of FIG. 1.

Applicants respectfully submit that the limitations of claim 1 are not met by the Caldera reference. Initially, Applicants note that claim 1 is directed to a contention-based network. The specification indicates that a contention-based network is a type of network, such as an Ethernet local area network, in which the various communication stations contend for access to a shared medium by attempting to transmit over the medium. This contention gives rise to collisions, which are resolved according to a protocol of the contention-based network. See the specification at, for example, page 1, line 4, to page 2, line 9, and page 3, lines 14-31.

Caldara is directed to a linked-list structure and method for use in an asynchronous transfer mode (ATM) network switch. It is believed that those skilled in the art would not consider an ATM network to be a contention-based network, in that users in the ATM context do not contend with one another for access to a shared medium in a manner which can lead to collisions. Instead, such users are assigned virtual circuits, and transmit their cells on demand within a particular synchronous time-slot pattern in a synchronous bit-stream. The ATM network is asynchronous in that the particular times at which the cells of a given user are sent are not synchronized with one another. However, there is no situation in which a transmission from one user can collide with that of another user, leading to contention of the type found in a contention-based network. Accordingly, Applicants assert that Caldara is not a contention-based network. In fact, it appears that Caldara is non-analogous art relative to the claimed invention.

Moreover, claim 1 specifies that multiple linked-list chains of data packets are transmitted by the communications stations. The Examiner argues that this limitation is met by the linked-list arrangements shown in FIGS. 5, 6 and 11 of Caldara. However, Caldara at column 7, lines 47-65, describes the linked-list structure as follows:

Dynamic bandwidth cell times are managed by taking advantage of a nested set of pointers, or what is referred to as a “list of lists” technique. In general, such a structure is presented in FIG. 5. A set of lists, labelled Dynamic Bandwidth Lists, has plural entries, labelled Port 0<sub>1</sub>, Port 0<sub>2</sub>, Port 0<sub>3</sub>, Port 0<sub>4</sub>, Port 1<sub>1</sub>, Port 1<sub>2</sub>, Port 1<sub>3</sub>, . . . . Each entry represents a dynamic bandwidth list for each port and priority (discussed below), and has a head

pointer-tail pointer pair pointing to scheduling lists for port 0, priority 3. Thus, “Dynamic Bandwidth Lists” is comprised of entries which are themselves lists, or in other words, is a list of lists. The head pointer for Port 0<sub>3</sub> points to scheduling list 12 (SLIST 12). SLIST 12 is the first of plural scheduling lists in the linked-list data structure called the dynamic bandwidth list for the port and priority. The tail pointer for Port 0<sub>3</sub> points to the last entry in this linked-list structure, SLIST 5. Each scheduling list in the structure has a pointer to the next scheduling list in the same structure.

Thus, it is apparent that Caldara is not describing multiple linked-list chains of data packets, as recited in the claim. Instead, the linked lists in Caldara comprise a “list of lists” arrangement, and not multiple linked-list chains of data packets.

It is also important to note that claim 1 recites transmission of the multiple linked-list chains of data packets by communication stations. Caldara describes an ATM switch, and not a set of communication stations. Those skilled in the art will recognize that a network switch, such as that described in Caldara, is not a communication station. Although cells transmitted by the ATM switch of Caldera may originate from communication stations, the particular manner in which the cells are transmitted by the ATM switch is not controlled by the communication stations, nor would such stations be aware of the FIG. 5 linked-list structure implemented by the switch. Any communication stations which transmit cells to the ATM network switch in Caldara apparently transmit such cells on demand, without any use of linked-list chains as set forth in the claim. Accordingly, Caldara fails to disclose or suggest the transmission of multiple linked-list chains of data packets by communication stations.

Applicants therefore submit that Caldara fails to teach or suggest each and every limitation of claim 1.

The other independent claims recite similar limitations relating to transmission of multiple linked-list chains of data packets by communication stations in a contention-based network, and are therefore not anticipated by Caldara.

The dependent claims are believed allowable for at least the reasons identified above with regard to their respective independent claims.

In view of the foregoing, Applicants believe that claims 1-12 and 15-26 are in condition for allowance, and such favorable action is earnestly solicited.

Respectfully submitted,



Date: July 1, 2005

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